### AIR COMMAND AND STAFF COLLEGE AIR UNIVERSITY

## THE ARCTIC NATIONS; AN OPPORTUNITY TO LEAD BY EXAMPLE

# Military forces used in peaceful collaboration towards Arctic human and environmental security

by

Marianne Mjelde Knutsen, Major, Royal Norwegian Air Force

A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

Advisor: Lt. Col. Robert Munson, PhD

Maxwell Air Force Base, Alabama

March 2010

#### Disclaimer

The views expressed in this academic research paper are those of the author(s) and do not reflect the official policy or position of the Norwegian government, The Royal Norwegian Air Force, the US government or the Department of Defense. In accordance with Air Force Instruction 51-303, it is not copyrighted, but is the property of the Norwegian and United States government.

The Arctic Ice is melting year by year. It does not matter why, what and who causes this, the fact has been supported by numerous scientific and research reports throughout the last decades (reference map appendix A). "Regardless of the driving forces, the combined observations and documentation suggest that the Arctic system may be entering a state not seen before in historic times."<sup>2</sup> In the Climate Conference in Copenhagen 13 December 2009, former US vice president Al Gore emphasized a report that shows that the summer ice over the Arctic will disappear within a few years, and that there is a 75 % chance of the whole ice cap over the Arctic will be gone during the next five to seven years.<sup>3</sup> This has brought a sense of urgency to the Arctic region. The five Arctic coastal nations Russia, Norway, Denmark, Canada and the USA have been and are still seeking solutions on how to meet the challenges and consequences of an ice-free Arctic. Through the Arctic Council and the UN Convention on the Law of the Sea (UNCLOS), the Arctic nations have both the cooperative and legal tools to solve the security issues emerging with the melting of the Arctic Ice. 4 However, the intended peaceful circumpolar cooperation, coordination and interaction towards human and environmental protection has been a slow process and has not lived up to its potential. <sup>5</sup> The Arctic nations have turned their focus towards the competition for and protection of their own natural resources, economic gains, sovereign rights and territory, leaving the human and environmental issues and the resources and capacities needed to face the consequences second priority. Thus, the Arctic nations need to

<sup>&</sup>lt;sup>1</sup> The National Aeronautics and Space Administration Earth Observatory, *Record Sea Ice Minimum*, (NASA Goddard space Flight Center, USA, 16 September 2007), <a href="http://earthobservatory.nasa.gov/IOTD/view.php?id=8126">http://earthobservatory.nasa.gov/IOTD/view.php?id=8126</a>.

<sup>&</sup>lt;sup>2</sup> International Arctic Research Center, *Arctic System Science*, (University of Alaska, [or AL]: Fairbanks, February 2009), 1, <a href="http://www.iarc.uaf.edu/research/index.php">http://www.iarc.uaf.edu/research/index.php</a>.

<sup>&</sup>lt;sup>3</sup> Norwegian Telegram Bureau, "U-landene marsjerte ut i protest," *Adresseavisen*, 14 December 2009, <a href="http://www.adressa.no/vaeret/klima/article1421916.ece">http://www.adressa.no/vaeret/klima/article1421916.ece</a>.

<sup>&</sup>lt;sup>4</sup> Margaret Blunden, *The New Problem of Arctic Stability*, Survival, Vol 51 no 5, (Ruthledge, UK October-November 2009), 124.

<sup>&</sup>lt;sup>5</sup> Arctic Council, *Declaration of the Establishment of the Arctic Council*, 1996, <a href="http://arctic-council.org/article/about">http://arctic-council.org/article/about</a>.

regain focus; time is running out. They have the opportunity collectively to provide the required resources and capacities to ensure human and environmental security by using military forces as tools in peaceful collaboration. This paper will try to explain why and how.

The consequences of the melting of the Arctic Ice are numerous and complex. These consequences, in some way or the other, lead to security issues in terms of human or environmental concerns as well as protection of or competition for sovereign rights, territory and resources. For the purpose of this paper, the term *human-centric security* is used with reference to the protection of human lives or livelihoods or the environment they live in. The term *state-centric security* is in reference to the protection and security of a nation's rights, territory, and resources. The following discussion on consequences revolves around the opening of Sea lines of communication (SLOCs) and the new or changing natural resources. These consequences are also relevant in order to show the difference in focus between the human-centric and the state-centric security issues in the region.

Firstly, the opening of SLOCs over the Northwestern or Northeastern passage will affect the Arctic people's lives, their livelihoods and the environment they live in. The distance from Asia to the Atlantic is significantly decreased by the possibility to sail over the Arctic Ocean, and estimates say that the sailing time may be reduced as much as 40 %. This will generate increased maritime traffic, which may include tourism, supplies, fishing or trade. With this increased activity, the need for safe and secure SLOCs emerges. A safe conduct of maritime traffic will be preventive towards maritime accidents, which may endanger human lives or the environment through oil spillage or debris from wreckage left in the ocean. The opening of the

-

<sup>&</sup>lt;sup>6</sup> Margaret Blunden, The New Problem of Arctic Stability, 122

<sup>&</sup>lt;sup>7</sup> Arctic Council, *Arctic Marine Shipping Assessment 2009 Report*, (Arctic Council, April 2009), second printing, 2, <a href="http://www.pame.is/amsa/amsa-2009-report">http://www.pame.is/amsa/amsa-2009-report</a>.

SLOCs may also lead to other types of maritime traffic such as, illicit trade, drug traffic, human trafficking, terrorism, piracy or illegal immigration.<sup>8</sup>

Secondly, an ice-free Arctic will reveal new natural resources or bring change to the existing. New oil and gas fields will emerge. According to a US Geological Survey, there may be about 30 % of the world's undiscovered gas and 13 % of undiscovered oil in the Arctic. This will lead to increased traffic and the consequences as mentioned above, but also issues within environmental security. The emergence of new oil and gas fields will most probably lead to development and industry brought to a fragile Arctic. Large oil platforms, maritime traffic, and the risk of oil spillage will increase proportionally with the development of new oil and gas fields. Additionally, if viewing oil and gas fields as vital infrastructure, these may represent points of interest and targets for rogue or aggressive groups or organizations seeking to pressure nations or gain power, thus threatening overall security in the region.

Change in existing natural resources revolves around fishing grounds and animal habitats. New fishing grounds will emerge and others may disappear. The increased temperature in the sea may lead to changing of fishing habitats and consequently the movement of resources from one area to another. Consequently, people depending on fish as means of livelihood may lose their source of income, and be forced to move from the coastal areas. Animal habitats are also in danger when subject to change. The Arctic Ice represents a food chain system where animals depend on the ice for finding, transporting and hunting for food. When the ice melts, the food sources may move or simply disappear, and the animals are forced to move to where food sources are rich. If considering animal hunting for food or income as people's means of livelihood, the consequences may very well be the same as mentioned for changing fishing

<sup>8</sup> Ibid., 124.

<sup>&</sup>lt;sup>9</sup> Donald L. Gautier et al., *Assessment of Undiscovered Oil and Gas in the Arctic*, Science, vol 324, no 5931, 29 (May 2009), 1, <a href="http://www.sciencemag.org/cgi/content/full/324/5931/1175/">http://www.sciencemag.org/cgi/content/full/324/5931/1175/</a>.

grounds above. <sup>10</sup> Human distress and degradation of means of livelihood may induce illegal fishing or hunting issues. Unfortunately, illegal fishing already presents a challenge today. In some areas in the Arctic, the registered amount has been up to 100.000 tons per year in the latest years. 11 The consequences of the melting of the Arctic ice are not only human-centric.

The state-centric security issues revolve around each nation's security and protection of as well as claims for sovereign rights to territory, SLOCs and natural resources, and are the source of disputes, tension and competition. However, this is not a new or emerging theme. Several agreements as well as disputes over borders, fishing grounds and territory have been in process since the beginning of the 20<sup>th</sup> century. 12 However, the state-centric security issues have received increased focus through the increasing speed in which the ice is melting. The result has been that human-centric security issues are suffering from less attention. "The most pressing risk is that the heightened strategic importance of the region will set off a vicious spiral of suspicion, nationalist rhetoric and re-militarization. "13The consequences addressed have lead to disputes over maritime and territorial rights in the competition for resources and economic gains. Oil and gas additionally represents relief from dependency on other nation's energy resources, as well as vital products as global energy and resource scarcity is becoming more and more evident. The competition for rights and resources for economic gains and interests in the Arctic, however, are no longer issues only within and between the Arctic nations.

Numerous other nations, international institutions and organizations have expressed concerns and interests in the Arctic. NATO is involved as a military security institution among

<sup>&</sup>lt;sup>10</sup> Arctic Council, Arctic Marine Shipping Assessment 2009 Report, 126.

<sup>&</sup>lt;sup>11</sup> Statistisk sentralbyra, Viktige signaler om samfunnet, Indikatorsettet for bærekraftig utvikling, (Oslo, Kongsvinger, July 2009), 63, http://www.ssb.no/emner/01/rapp\_indikator\_utvikling/rapp\_200926/rapp\_200926.pdf.

<sup>&</sup>lt;sup>12</sup> International boundaries Research Unit, Maritime jurisdiction and boundaries in the Arctic region, (Durham University, UK, 24 July 2008), http://www.dur.ac.uk/ibru/resources/arctic/.

<sup>&</sup>lt;sup>13</sup> Margaret Blunden, The New Problem of Arctic Stability, 137.

the Arctic NATO nations, thus provoking Russia. Russia is further provoked since Sweden and Finland (non-NATO countries) have increased their cooperation with NATO and the European Union initiative Nordic Battlegroup and Nordic Foreign Ministers are working towards a closer military defense and security policy. 14 Although the NATO-Russia Council presents opportunities for cooperation in the Arctic, there are no results so far. <sup>15</sup> The European Parliament is concerned about the global sharing of resources and the rights of indigenous people and wants to be observer in the Arctic Council. European and Asian nations express their concerns about energy resources, but are eager to exploit the benefits of reduced sailing time over the Arctic.<sup>16</sup> These are some examples of the interests and attention from the international community that complicates and blur the focus on human-centric security and peaceful collaboration towards building capacities and resources to meet the challenges collectively. "There is a risk, however, that the overall strategic objective of maintaining stability within a zone of peace and cooperation could be forgotten. Growing military activity, closer security coordination among Western states, and inflammatory rhetoric could set off a vicious circle, jeopardizing the wide – ranging collaboration put in place since the Cold War."<sup>17</sup>

To conclude this presentation of human- and state-centric consequences of the melting of the Arctic Ice, it is important to point to the differences and similarities they represent. The human-centric security issues are transnational and have no borders. The effects of opening of SLOCs and emergence of new or change in natural resources may affect to varying degrees all of the Arctic nations' people or environment. The driving factor is protecting and securing human beings and the environment they live in regardless of borders. The state-centric security issues

<sup>&</sup>lt;sup>14</sup> Ibid., 130. <sup>15</sup> Ibid., 133.

<sup>&</sup>lt;sup>16</sup> Ibid., 124.

<sup>&</sup>lt;sup>17</sup> Ibid., 121.

are revolving around national own borders and territory. It is about protection and security of own economic gains and resources as well as preventing other from access to these. The driving force is the nation's self-interest and security within its own territory. The most important point to this is that the state-centric security focus is hampering the development of peaceful cooperation towards ensuring human-centric security. "The overriding concern in the Arctic must be to resist a slide back into confrontation at the expense of cooperation." 18

What these have in common though, is maybe the most important observation. Both human-and state-centric security issues require capabilities and resources to face the challenges. Both need capabilities for surveillance, control, enforcement and protection regardless of whether it is vital infrastructure, environment, people, criminal activity, natural resources or territory. Both need capabilities for ensuring safe conduct of maritime traffic and prevention of accidents. Both require disaster relief, search and rescue capabilities and response to accidents or oil spillage, whether it is for human-centric reasons or self-interest. What they also have in common is that something needs to be done, soon. It takes time and economy to build, train and educate capacities and resources and some nations are already struggling with this. If the state-centric focus prevails this is each nation's own responsibility, if the human-centric transnational security is the focus this is done collectively. The following part offers a way of collective resolve and addresses the benefits of doing this.

The Arctic nations have the opportunity to use their military forces as tools in peaceful collaboration to prevent and mitigate the human-centric consequences. Their forces represent capacities or resources required already trained and in place as well as the ability to cover all the domains in question, sea, land and air including cyber and space. However, if the prevailing

<sup>&</sup>lt;sup>18</sup> Ibid., 132

<sup>&</sup>lt;sup>19</sup> Arctic Council, Arctic Marine Shipping Assessment 2009 Report, 155.

<sup>&</sup>lt;sup>20</sup> Ibid., 6 pt E and 7 pt F.

focus is state-centric, using military forces will represent sources for tension and perceived show of force and power projection. This is not the intention. The intention is that the Arctic nations offer their military resources into a collective pool of tools to complement and strengthen each other.

For the safe conduct of maritime traffic, space assets can provide uninterrupted communications and navigational aids as well as weather information. Additionally, these space assets together with air assets can provide surveillance and control of the region. By sharing information and surveillance data, the nations will be able to observe, predict and keep control of traffic that is potentially illegal or threatening. <sup>21</sup> The control and enforcement functions can be covered by naval forces to counter illegal activity, but also for safe SLOCs. The mentioned resources should be used to prevent and ensure safe and legal maritime activities in the region. However, accidents may occur, whether it is tourist ships or oil tankers. Naval forces will be able to conduct search and rescue in collaboration with air assets. Air assets have the advantage of a speedy on scene arrival and are able to search for and locate the distressed vessels and if conditions allow, rescue. Naval forces will in any case be able to conduct rescue operations in addition to providing platforms and assets for offshore cleanup of oil spillage or debris. Land forces can assist in rescue operations and provide manpower and assets for cleanup onshore, as well as protection of vital infrastructure offshore. Multi-network solutions for command, control and communication (C3) are already part of military operations and will greatly enhance effectiveness of scenario management. "While military forces rarely in charge of providing relief, they contribute organized, disciplined manpower, critical supplies and equipment; transportation; and the command and control, and communications required to coordinate relief

<sup>&</sup>lt;sup>21</sup> Ibid., 91, pt 8 and 9.

activities."<sup>22</sup> Not only military forces can provide assets to face the challenges in the Arctic. Civilian resources have been developed by the Arctic Nations, however small-scale. Exercises and cooperation between military and civilian resources are regularly conducted, but this is also small-scale, either within a nation or bilaterally. Thus, the civil-military cooperation already conducted needs to continue and resources will complement each other. Most of the Arctic nations are already using their military forces and assets in order to provide security; however, the focus is state-centric. Military forces used collectively can cover most of the aspects of the consequences in the Arctic. Also by sharing surveillance data, information, control and enforcement assets, the arctic nations' ability to be pro-active and preventive is significantly increased. However, to ensure human-centric security is not what the military is supposed to do, is it? Well, that depends on how one defines military roles and missions.

Some nations already depend on their military forces to ensure homeland security, whether it is human- or state-centric security. Additionally, the roles of the military have increasingly developed into far more non-military than the traditional, conventional threat related roles. Protecting people and the environment is not a new or very different role for military forces. Such roles are humanitarian aid or assistance, civil assistance, disaster relief, peacekeeping or building, nation building, counterdrug operations, and non-combatants evacuation among other. Examples of actual conduct of these operations are many. An aggressor does not even have to be present and it does not even have to be an armed conflict. Furthermore, the Arctic nations already have experience in conducting multinational coalition operations or exercises. Another point to this is that civilian-military (Civ-mil) cooperation is not a new concept for the military either. Civ-mil cooperation has received increased focus and importance

<sup>&</sup>lt;sup>22</sup> John F. Siegler, *U.S. Military and environmental Security in the Gulf Region*, Environmental Change and Security Program Report, issue 11, (The Woodrow Wilson International Center for Scholars, Washington DC, [or D.C]: 2005), 52, <a href="http://wilsoncenter.org/topics/pubs/ECSP%20report%20111.pdf">http://wilsoncenter.org/topics/pubs/ECSP%20report%20111.pdf</a>.

in the most recent conflicts, through stability, security, reconstruction and transition operations (SSTR), in fact according to a US directive, this is essential for mission success.<sup>23</sup>

Although possible to use military forces as tools in peaceful collaboration to provide security against human-centric consequences, is it likely? Well, not if the state-centric focus prevails. Not if the Arctic nations chose to focus on own borders, territory, sovereign rights and continue disputes, tensions and competition for resources, instead of solving pressing human-centric security issues. To say this bluntly, it is not likely as long as each nation's question "what's in it for me?" is not answered. Then, what are the gains by focusing on human-centric security and using military forces in peaceful collaboration towards this?

First, the Arctic nations have the opportunity to show the ability to live up to the expression to "lead by example". By leaving tensions, disputes and competition as second priority and showing resolve and collaboration, other nations in the world may see opportunities and gain motivation for doing the same. This will also prove wrong the predictions and accepted theories that future wars will be fought over "[T]he possession and control over vital economic goods-especially resources needed for the functioning of modern industrial societies." This will show that peaceful collaboration towards common goals is more beneficial for long-term human-centric security. This will show that a nation's instrument of power, the military, is not only a tool for intervention, combat or power projection, but also a political tool to preserve safety, security and stability for human and environmental purposes. Putting this cynically, it also shows that the nations actually are interested in human-centric security matters, thus gaining respect and support in its populations and other nations. In contrast, without resolve, the Arctic nations will

<sup>&</sup>lt;sup>23</sup> Department of Defense (DoD) Instruction 3000.05., *Military Support for stability, Security, transition, and Reconstruction Operations (SSTR)*, (Washington, DC [or D.C]: 16 September 2009), 2, pt 4c.

<sup>&</sup>lt;sup>24</sup> Michael T. Klare, *Resource Wars, the new landscape of Global conflict. The New Geography of conflict,* (Owl Books, Henry Holt and Company, LCC, New York, [or N.Y.]: USA, 2001), 213.

prove that even strong and economically stable democracies are not able or willing to solve these issues in peaceful collaboration. Then, we cannot expect that less fortunate or weaker states should be able or willing to do that either.

Second, peaceful collaboration in the Arctic will form an allied community or institution through their prevailing focus on diplomacy, agreements and sharing of burdens and capacities. These allied connections may be very useful in other regions in the world where instability and more traditional security threats may emerge or need intervention from outside nations. A simple example is that old cold war adversaries, Russia and the USA, may be more robust and closer to friends rather than enemies in solving issues in other regions of the world. Allies are also beneficial in terms of sharing of burdens or resources, not only with regards to the Arctic issues. Simply put, it is easier to ask an ally for help or relief than an adversary.

Third, through collaborative efforts and the use of military resources already in place, the Arctic nations are able to be pro-active rather than reactive. Prevention and mitigation are keys to reduce the impacts on human-centric security. Time does not allow state-centric disputes to be solved before these consequences appear. The consequences will appear whether the disputes over territory or resources are solved or not. To be pro-active will show resolve to the benefits of humans and the environment, i.e. the focus on the most imperative, transnational, and time sensitive consequences.

Fourth, it is most probably more costly to be reactive than pro-active. As an example, preventing maritime accidents from happening in the first place will be more cost-effective than conducting re-active extensive search and rescue operations and oil spillage cleanup. In addition, to build and train parallel civilian resources and capacities to solve these issues requires more funding than using military resources already trained and in place. Furthermore, if choosing the

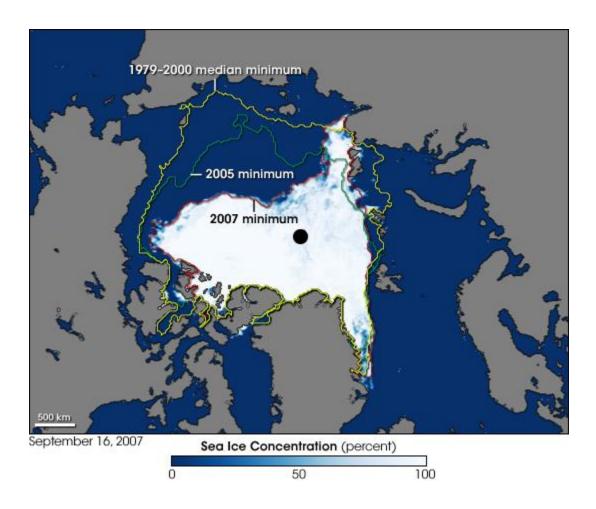
state-centric approach, these costs will rest on each nation's responsibility to handle this alone.

Again, together is stronger, also economically.

To face the consequences of the melting of the Arctic ice, the Arctic nations need to regain focus. Although the Arctic Council represents an institution that works to promote humancentric security, and the legal tools through UNCLOS are in place for peaceful settlements of territorial disputes, the Arctic nations are not cooperating and coordinating towards a collective resolve. The reason is the state-centric focus taking the attention and efforts from the pressing human-centric security issues. The product is small-scale, nation wise security measures that lack capacity and assets in meeting the complex and multidimensional transnational consequences. However, the Arctic nations have the opportunity collectively to provide the required resources and capacities to ensure human and environmental security by using their military forces as tools in peaceful collaboration. These resources are available and trained and such missions are not new concepts. Joined in a common effort with civilian resources, they can cover all the functions of required tools to face the consequences in the Arctic. Through this, the Arctic nations have an opportunity to lead by example as strong and stable democracies, to gain allies and mutual trust, the ability to prevent and mitigate the consequences and be cost-efficient. This is also preventing a state-centric approach to result in a cold war scenario in a warming climate.

#### Appendix A Record Sea Ice Minimum

NASA image created by Jesse Allen, using AMSR-E data courtesy of the National Snow and Ice Data Center (NSIDC), and sea ice extent contours courtesy of Terry Haran and Matt Savoie, NSIDC, based on Special Sensor Microwave Imager (SSM/I) data.



#### **Bibliography**

- Arctic Council. *Declaration of the Establishment of the Arctic Council.1996*. http://arctic-council.org/article/about.
- Arctic Council. *Arctic Marine Shipping Assessment 2009 Report*. Arctic Council, April 2009, second printing. http://www.pame.is/amsa/amsa-2009-report.
- Blunden, Margaret. *The New Problem of Arctic Stability*. Survival, Vol 51 no 5. Ruthledge, UK October-November 2009.
- Department of Defense (DOD) Instruction 3000.05. *Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations*. Washington DC [or D.C.], 16 September 2009.
- Gautier, Donald L et al. *Assessment of Undiscovered Oil and Gas in the Arctic*. Science, vol 324, no 5931, 29 May 2009. http://www.sciencemag.org/cgi/content/full/324/5931/1175/.
- International Arctic Research Center. *Arctic System Science*. University of Alaska [or AL]: Fairbanks, February 2009. http://www.iarc.uaf.edu/research/index.php.
- International Boundaries Research Unit. *Maritime jurisdiction and boundaries in the Arctic Region*. Durham University, UK, 24 July 2008. <a href="http://www.dur.ac.uk/ibru/resources/arctic/">http://www.dur.ac.uk/ibru/resources/arctic/</a>.
- Klare, Michael T. *Resource Wars, the new landscape of Global conflict. The New Geography of Conflict.* Owl Books, Henry Holt and Company, LCC, New York [or N.Y.], USA, 2001.
- Norwegian Telegram Bureau. "U-landene marsjerte ut i protest." *Adresseavisen*, 14 December 2009. http://www.adressa.no/vaeret/klima/article1421916.ece.
- Siegler, John F. *U.S. Military and environmental Security in the Gulf Region*. Environmental Change and Security Program Report, issue 11. The Woodrow Wilson International Center for Scholars, Washington DC, [or D.C], 2005. <a href="http://wilsoncenter.org/topics/pubs/ECSP%20report%20111.pdf">http://wilsoncenter.org/topics/pubs/ECSP%20report%20111.pdf</a>.
- Statistisk sentralbyra. *Viktige signaler om samfunnet, Indikatorsettet for bærekraftig utvikling*. Oslo, Kongsvinger, July 2009. http://www.ssb.no/emner/01/rapp\_indikator\_utvikling/rapp\_200926/rapp\_200926.pdf.
- The National Aeronautics and Space Administration Earth Observatory. *Record Sea Ice Minimum.* NASA Goddard space Flight Center, USA, 16 September 2007. <a href="http://earthobservatory.nasa.gov/IOTD/view.php?id=8126">http://earthobservatory.nasa.gov/IOTD/view.php?id=8126</a>.